

Application No. 10/720,457
Amendment dated December 18, 2006

Docket No.: 29936/39764

REMARKS

This paper is in response to the final official action of October 18, 2006, wherein all claims 1-14 were rejected as anticipated by Wu US 2002/0115270 (claims 1 and 5) or obvious over Gardner US 5,985,743 or Wu in view of one or more various secondary references.

Claims 1-14 are pending, claims 1 and 6 being the only independent claims. All claims recite a method of forming a device isolation film in a semiconductor device.

By the foregoing amendments, both independent claims have been amended to recite the step of forming an active region on which ions are implanted for controlling a threshold voltage in an NMOS region on a surface of a semiconductor substrate, to recite the step of forming a trench having a sidewall to define the active region and a device isolation region by etching a portion of the semiconductor substrate of a device isolation region, and to recite the step of performing an ion implantation process into the active region to compensate for a concentration of the ions implanted for controlling a threshold voltage in the NMOS region.

It is axiomatic that every element of the claim must be found in a reference or references in order to support the anticipation or obviousness rejection.

While each of Wu and Gardner has been cited as teaching forming an active region on which ions are implanted for controlling a threshold voltage on a surface of a semiconductor substrate, neither reference has been cited for showing a method of forming a device isolation film on a semiconductor device where an active region around which ions are implanted for controlling the threshold voltage in an NMOS region on a surface of a semiconductor substrate, and performing an ion implantation process into an active region to compensate for the concentration of the ions implanted for controlling a threshold voltage in the NMOS region.

It is submitted that the present rejections should be withdrawn in view of the amendments to claims 1 and 6, and such action is solicited.

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Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application toward allowance, is urged to telephone the undersigned at the indicated number.

December 18, 2006

Respectfully submitted,

By 

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